

Amendment to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (previously presented): A catheter and guide wire exchange system comprising:

an elongate flexible catheter shaft having proximal and distal shafts and first and second lumens extending there through, the first lumen being open at the shaft distal end and being sized and shaped to slidably receive a guide wire;

a longitudinal guide way formed in the proximal shaft to enable transverse access to the first lumen through the proximal shaft, the guide way extending along a major portion of the length of the proximal shaft from a location adjacent a proximal end of the proximal shaft to a distal terminal end proximal of a distal end of the proximal shaft, thereby defining an uncut distal segment of the proximal shaft;

a balloon mounted about a distal segment of the distal shaft, the balloon being in fluid communication with the second lumen; and

a guide member mounted on the proximal shaft and having an outer member and an inner member, the inner member having a catheter passageway extending there through for slidably receiving the catheter shaft and a guide wire passageway for slidably receiving the guide wire for merging the guide wire and the catheter by guiding the guide wire transversely through the guide way and into the first lumen and for separating the guide wire and catheter by guiding the guide wire transversely out of the first lumen through said guide way, the guide member including a keel for tracking the guide way, the outer member being selectively rotatable relative to and around the inner member.

Claim 2 (original): A catheter and guidewire system of Claim 1 and further including a keel on the inner member of the guide member, the keel having a passageway for receiving the guidewire.

Claim 3 (previously presented): A catheter and guidewire system of Claim 2 and further including a guidewire passageway on the inner member that is in communication with the keel guide wire passageway.

Claim 4 (new): A catheter and guidewire system of Claim 1, wherein the outer member has an outer surface that is smooth.

Claim 5 (new): A catheter and guidewire system of Claim 1, wherein the outer member has an inner surface that is smooth.

Claim 6 (new): A catheter and guidewire system of Claim 1, wherein the outer member has an outer surface that is textured.

Claim 7 (new): A catheter and guidewire system of Claim 6, wherein the outer surface includes a plurality of circumferential bosses.

Claim 8 (new): A catheter and guidewire system of Claim 1, wherein the outer member is configured to freely rotate around the inner member.

Claim 9 (new): A catheter and guidewire system of Claim 8, wherein the outer member is decoupled from the inner member.